

# Joint Non-Lethal Weapons Directorate

## *Safeguarding Peace... Safeguarding Lives*



### New JCIG Principal & CAO US Army

The JNLWD welcomes the USA's new Joint Coordination and Integration Group (JCIG) Voting Principal, COL Dave Treuting. A member of the Military Police since 1975, COL Treuting brings a wealth of combat and law enforcement operations experience to the team, having been assigned to units in Germany, Korea, FT Hood and Saudi Arabia. Currently, COL Treuting is assigned as the Assistant Commandant of the United States Army Military Police School, FT Leonard Wood, MO.

LTC June Sellers assumed duties as the Central Action Officer (CAO) for the Army NLW Program in September 2000. As a Chemical Officer, LTC Sellers' assignments over the last 17 years have taken her to Germany, FT McClellan, United States Military Academy, and FT Hood. She is currently assigned to Headquarters, Training & Doctrine Command, FT Monroe as the Chief of the Soldier Support/NBC Division in Combat Developments.

### USA Proponency

On 12 September 2000, Gen Abrams, Commanding General of the U.S. Army Training and Doctrine Command (TRADOC), designated the U.S. Army Military Police School (USAMPS), Fort Leonard Wood, MO as the single proponent for non-lethal applications. Prior to this, USAMPS was responsible for law enforcement applications and the U.S. Army Infantry School was responsible for tactical applications. USAMPS will serve as TRADOC's single voice for all developments and initiatives to field NL capabilities within the USA.

### IPT DATES

Reminder to all Central Action Officers (CAO), Joint Coordination & Integration Group (JCIG) Voting Principals and Integrated Product Team (IPT) Voting Principals of the date for the IPT meeting during 2QFY01. It will be held at the Pentagon in the OSD Conference Room March 2001 from 0800-1000.

### Kosovo Case Study



On 4 April 2000, during real-world operations in Kosovo, the 709<sup>th</sup> Military Police (MP) Battalion employed a variety of non-lethal munitions to accomplish their assigned mission.

The JNLWD was tasked by the EA to conduct a Case Study. The purpose of the ongoing Case Study is to examine the incident within the larger operational context and identify lessons associated with NLW pre-deployment training, pre-mission rehearsal training, rules of engagement (ROE) and logistical and support considerations.

### International NLW Military Symposium

The final event of the United States/United Kingdom Non-Lethal Weapons in Urban Operations Wargame Series was held in London in November 2000. An Executive Seminar recommendation was to hold a similar event in the United States during the fall of 2001. Lieutenant General Bedard, chairman of the Joint Integrated Product Team will host an International NLW Military Symposium from 19 to 20 September 2001 aboard Marine Corps Base, Quantico, Virginia.

The International NLW Military Symposium will be a two-day event consisting of a NLW demonstration/

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display day and a presentation/discussion symposium day. The first day will consist of NLW system demonstrations and displays, an opportunity to visit the 2001 Marine Corps Exposition and attend a social event at the Clubs of Quantico. The second day will be held at the Marine Corps Research Center and will consist of a morning presentations followed by an afternoon issue discussion period. The detailed planning for this event is underway.

## U.S. NAVY FORCE PROTECTION/ANTI-TERRORISM (FP/AT) Participation

Following the attack on the USS Cole in Aden, Yemen, the Secretary of the Navy directed the establishment of a Force Protection Task Force (FPTF) to identify measures in the near, mid and long-terms to augment Fleet security. The Joint Non-Lethal Weapons Directorate has been an active participant at a number of levels in response to requests for information on applicable non-lethal technology and potential developmental program planning options that could support the goals of the FPTF. The Directorate briefed Rear Admiral (select) Holden OPNAV/N34 (Anti-Terrorism/Force Protection) on 6 November on how non-lethal weapons could improve port security. On 20 November, Col Fenton briefed retired Army General William Crouch and retired Admiral Harold Gehman, Jr., co-chairmen of the Cole Commission, on applicability of on-going directed energy technology developments sponsored by the JNLWP.

On 19 December, the Force Protection Task Force Technology Working Group received a briefing on the JNLW Program from Ms. Susan LeVine, JNLWD Deputy Director for Technology. She presented information on the composition, distribution and stockpile of the currently fielded NL Capability Sets, as well as on-going system and technology developments and NLW training capabilities and resources. During the upcoming Force Protection demonstrations scheduled during 2QFY01, elements of the Running Gear Entanglement System (RGES) will be used to demonstrate non-lethal augmentation of ship perimeter defense capabilities.

# Studies & Analysis

## JOINT MISSION AREA ANALYSIS JMAA

The final conference, for the Joint Non-Lethal Weapons (NLW) Joint Mission Area Analysis, was hosted by the Commander in Chief (CINC), Southern Command in Miami, Florida during 17-20 October 2000. Major final conference objectives were to review, discuss, and comment on the overall "strategy to task" analysis and to examine the observations, findings, and recommendations of the draft NLW JMAA Report. JMAA Panel members and participants were asked to provide their assessment and endorsement of the draft NLW JMAA Report and a draft Mission Need Statement (MNS) for a Family of Non-Lethal Capabilities.

The conference was extremely successful and produced outstanding results. JMAA Panel (Working Group members) and participants completed a very thorough review, provided productive comments, and worthwhile discussions on each of the individual working groups detailed assessments/analysis and briefings, the draft NLW JMAA final report, and draft MNS for a Family of Non-Lethal Capabilities.

The consensus of conference attendees was that the JMAA report provided a very solid foundation for non-lethal capabilities in the projected mission needs of the warfighter. They concluded that non-material solutions alone cannot satisfy the identified needs, and that materiel non-lethal capabilities should be considered to meet the current and future Service and warfighter needs and operational requirements. Since 1996, the JNLWP had been using two major NLW core capabilities (Counter-personnel & Counter-material) with six subordinate NLW functional areas for addressing warfighter's needs and desired capabilities. The JMAA recommends three core capabilities (Counter-personnel, Counter-material, & Counter-capability), with two additional NLW functional areas. The two new functional areas under Counter-capability are (1) Disable or neutralize facilities and systems, and (2) Deny the use of Weapons of Mass Destruction. The JMAA findings and supported by all JMAA panel members are that the three core capabilities and eight functional areas should be the basis for the JNLWP research and development focus to provide operationally effective and suitable non-lethal capabilities to support the Service and warfighter's needs, operational requirements and desired capabilities. The US Coast Guard and National Guard representatives at the conference felt that these very same non-lethal



## JMAA continued from page 2

capabilities may also satisfy needs and challenges that they are currently working to address.

The following principle and supporting recommendations, from the findings of the NLW JMAA are listed below:

### Principle recommendations:

- a. The Joint Requirements Oversight Council (JROC) approves the "Joint" MNS for the Family of Non-Lethal Capabilities.
- b. The JROC direct the development of Capstone Requirements Documents (CRD) for each of the eight non-lethal weapons functional areas, where appropriate.

### Supporting recommendations:

- a. The JNLWP Executive Agent (EA) expeditiously advance/develop analysis support tools such as models for human effects and operational analysis.
- b. Near term acquisition efforts, of the JNLWP, be focus on providing standoff capability to deliver non-lethal capabilities up to and beyond small arms range. Adaptation of current delivery systems is proposed for analysis.
- c. The Executive Agent (EA) in collaboration with the Service Chiefs, effect a method that allows for a focused joint science and technology (S&T) effort that concentrates on state-of-the-art non-lethal technologies.
- d. The JNLWP initiate and support the development of information and materiel, detailing the application of non-lethal capabilities for all levels of war, for incorporation into existing doctrine.
- e. The Executive Agent (EA) in coordination with the Joint Staff, incorporate instruction on the military applications on non-lethal capabilities in the Joint Professional Military Education (JPME).

The JNLWP will endeavor to support and provide resources to the two new functional areas mentioned above however, it will do so without diluting the overall program's financial resources that have supported the older two core capabilities and their six subordinate functional areas.

The results of the JMAA are directly linked and support other OSD and Joint areas currently under development or examination including OSD Urban Working Group, Joint Staff Urban Operations Working Group, Joint Forces Command's Non-Kinetic Technology (NKT) Limited Objective Experiments, NATO's NLW Defense Capabilities Initiatives (DCI) and NATO NLW Roadmap. The results of the Joint NLW JMAA were briefed to the senior leadership, within the US Marine Corps, at the Marine Corps Requirements Board (MRB) and Marine Corps Oversight Council (MROC) in

December 2000 and January 2001 respectively. The results of the Joint NLW JMAA are expected to be briefed to Joint Requirements Panel (JRP), Joint Requirements Board (JRB) and the Joint Requirements Oversight Council (JROC), by the Director JNLWD, during the 2nd Quarter of FY01.

## NATO AND NLW MEASURES OF EFFECTIVENESS (MOE) STUDY

Increasingly, North Atlantic Treaty Organization (NATO) forces are undertaking Military Operations Other Than War (MOOTW) in the form of peacekeeping, peace enforcement, and humanitarian operations. Additionally, NATO must be prepared to undertake combat operations against a background of increasing political pressure to limit collateral damage and casualties (both civilian and own forces).

Per the Terms of Reference (TOR) for the NATO study, NATO forces are not adequately equipped to meet the demands imposed by MOOTW. NLWs provide a critical additional capability to the force commander to enable him to employ options other than the current choice between posturing with or employing lethal force. Previous studies have identified NLW technologies available, and a NATO NLW policy was promulgated on 27 September 1999.

The NATO Defense Capabilities Initiative (DCI) states that: The Alliance should complete work to ensure that NATO has a sufficient range of capabilities for the full spectrum of crisis response operations. This should include: Work on a policy for the development and use of non-lethal weapons (NLW) in accordance with national and international law; adapting weapons technologies for use in operations that have a particular emphasis on the requirement to minimize collateral damage.

The Conference of National Armaments Directors (CNAD) has been leading the efforts to conduct exchange of information on the contribution NLWs make to peacekeeping and peace support operations, and to assess opportunities for co-operative research projects. In November 1999, the Studies and Simulation (SAS) Panel (under the Research and Technology Board (RTB), established an Exploratory Team (ET), designated SAS-E15, on NLW. The ET was tasked to draft a NATO NLW Road Map and draft *Terms of Reference (TOR)*, *Programme of Work (POW)*, and a *Technical Activity Programme (TAP)* for a study that would contribute to the work undertaken in meeting DCI for NLW.

The JNLWD participated in the draft and development of these documents and in the selection of the topic for the NLW study. The study accepted by the SAS-15 was the "Non-Lethal Weapons Measures of

### MOE Study continued from page 3

Effectiveness (MOE)". This two-year study envisions the creation of a Task Group from those nations participating in the SAS-E15 exploratory team. The requirements are detailed in the TOR, POW, and TAP. An informal consensus from the NATO Nations was that the United States is the best qualified for the lead.

In November 2000, the Department of Defense notified NATO that the JNLWD would assume the lead for the Task Group for the two-year study. The requirements and objectives for the SAS-E35 Non-Lethal Weapons Measures of Effectiveness (MOE) must be accomplished to evaluate the worth of NLW systems and assess their effectiveness in relation to lethal systems. The study will concentrate on defining and establishing MOE and will include the development of an "effects" database for NLW.

The first meeting of the US only members to the study took place during 29 January 2001. The first meeting of the NATO Task Group for the conduct of the study of NLW MOE, will occur in Brussels, Belgium during the first week of March 2001. The study completion date is planned for Nov. 2002.

## SOCOM REQUIREMENTS SCRUB

From October 31 through 3 November 2000, Col Charlie Vaughters, SOCOM liaison to JNLWD and Mr. Rod Smith, M2Technologies, reviewed available SOCOM documents to determine whether existing Service requirements could be satisfied with a non-lethal material solution. The purpose was to identify and document deficiencies of new requirements and emerging capabilities of existing Mission Needs Statements (MNS) and Operational Requirements Documents (ORDS). Eight MNS/ORDS had requirements/deficiencies, which NLW programs/technologies could apply. These included existing requirements for an Advanced Tactical Weapon system, stand-off destruction weapon and a penetration augmentation weapon which have a NLW directed energy application. A limited number of Joint Universal Lessons Learned (JULLS) documents were reviewed and thirteen were found to have applicability for fire support planning and coordination for non-lethal weapons in minimizing collateral damage to personnel and facilities.

The study concluded the review of documentation did identify multiple requirements that have NLW application and continued review will determine prioritization within SOCOM.

For a copy of the report and/or further information please contact Col Vaughters at commercial (703) - 784-2646 x 244, DSN 278-2646 ext 244.



## US/ISRAEL DEA



### Data Exchange Agreement (DEA)

The Master Defense Development DEA between the US DoD and the Israeli Ministry of Defense (MoD) is dated 22 December 1970. A Non-Lethal Weapons Systems Annex (N-99-IS-4115) to that agreement was signed on 14 September 99. The purpose of the annex is the exchange of R&D information (up to confidential information) in the fields of NL technologies. The scope covers NL Design Concepts, Policy, Doctrine, Concept of Operation and Concept of Deployment. Col Fenton, Director, JNLWD, is the U.S. Technical Project Officer (TPO) and Lt Col Michael Azulay is the Israel TPO.

The First Data Exchange Agreement (DEA) occurred 14-16 November 2000 in Israel. Exchange objectives for both the US and Israel were the collaboration of human effects; ranges beyond 100 meters; scenarios (play-book) to assist in the analysis and evaluation of NLW, training application and effectiveness; development and implementation of employment concepts, doctrine, tactics, training, security measures and logistics support for existing and merging NLW. We are soliciting agenda topics for the next DEA (date TBD). Please submit proposals for Terry Wright @ (703) 784-2951, ext 227 or DSN: 278-2951. Follow up actions will be determined and directed by Director, JNLWD.

## Joint Non Lethal Scenario Playbook



### Non-Lethal Scenario PlayBook

development of scenario/vignettes, which supported the CFAC-CEP USMC Lead).

The NLW SPB will also support the scenario requirements for the Area Denial to Personnel CEP, the follow-on CEPs, and the JCATS capabilities set study (CSS). The final version of the NLW SPB is to be a DoD approved Illustrative Planning Scenario (IPS) compliant scenario playbook, which supports the needs of the Joint Non-Lethal Weapons Program. The SPB will also include existing scenarios that have been analyzed for relevance, pertinence and applicability to NLW options.

Each scenario will follow a standard format, which allows CEP users flexibility in adjusting the scenario as necessary for their needs and requirements. The vignettes will focus on tactical situations where the application of non-lethal technologies can be evaluated. This approach allows the user to select what is needed to support the parameters of their task.

The draft scenarios will be in an electronic version with a search capability to assist the user in finding the right draft for his needs. The final version of the NLW SPB is projected to be available in the Spring of 2001.

The Non Lethal Weapons Program, Ground Weapons Directorate (CBG), MARCORSYSCOM, USMC is developing a Non-Lethal Weapons Scenario Playbook (NLW SPB). The effort initially focused on the





# New FY01

## Concept Exploration Program Starts

During the Director's Reviews of the ongoing CEPs, it became clear that we are missing a tremendous opportunity to shape the development of future non-lethal capabilities. With the commencement of four new CEPs, it is critical that each service/SOCOM attend each CEP meeting and participate responsibly, to ensure the operational context scoping is tailored to each Services' specific need. To this end:

The USA is the lead for Area Denial to Vehicles (AD-V) and Crowd Control (CC) CEP's. A Milestone A package for both CEPs was submitted in December of 2000; MDA approval is anticipated by the end of 2QFY01.

Mr. Dave Millette, the AD-V CEP manager, and Mr. Frank Hanzl, the CC CEP manager held a joint Kick Off meeting 23-25 January 2001 at Crystal City, VA to assign team responsibilities and to determine a methodology to evaluate alternative system concepts within the bounds of their operational concepts and mission tasks. For further information please contact Mr. Millette at (973) 724-6246 /DSN 880-6246 or Mr. Hanzl at (973) 724-7097/DSN 880-6246.



DSN 278-2006.

The USMC has the lead for the Incapacitate Personnel (INCAP) CEP. Mr. Vince Ellis is the CEP Manager. The USMC Program Analysis and Evaluation (PAE) Division designated the INCAP CEP as an ACAT III program and approved a Milestone A on 27 Nov 2000. Mr. Ellis conducted a Kick Off meeting to present a plan to the AoA IPT on 30 January 2001 at Quantico, VA. The INCAP CEP plans to review and potentially develop capabilities to incapacitate individuals within the scope of their operational context. The INCAP CEP will leverage from Clear Facilities and Structures CEP and Crowd Control CEP efforts.

For further information contact Mr. Ellis at (703) 784-2006 x2723/

The USN has the lead for the Disable Displacement Vessels (DDV) CEP. Mr. Ken Bullard is the DDV CEP Manager. The DDV CEP's Milestone A was approved on 28 June 00 by PEO Expeditionary Warfare. Responses to a Broad Agency Announcement for technologies to non-lethally disable large displacement hull vessels are currently being reviewed for awards. For more information please contact Mr. Bullard at (540) 653-4779/DSN 249-4779.

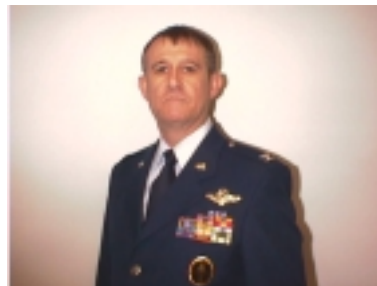
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## New Program Support Officers (PSO)

The JNLWD welcomes all the service PSOs. The PSO provides program support for the service Joint Coordination and Integration Group (JCIG) & Voting Principal & Central Action Officer (CAO). Mr. Ray Grundy, grundya@msc.usmc.mil, is the Marine Corps PSO and can be reached at DSN 278-2006 ext 42729. The Army PSO is Mr. Wesley "Bo" Barbour, barbourw@monroe.army.mil, DSN 680-3702. Ms. Charlene Rusnak, rusnakcf@nswc.navy.mil, DSN 225-1444 is the Navy PSO. The USN has since declared that Ms. Rusnak is their Central Action Officer. The SOCOM PSO is Mr. Jim Smith, smithj@dyncorp-tampa.com, commercial (813) 837-2622. Mr. Sal Hernandez Jr, salvador.hernandez@lackland.af.mil, DSN 473-0977 is the Air Force PSO.

## JNLWD Augmentation

Col Charlie Vaughters, USAFR, was temporarily assigned from SOCOM to the JNLWD from 1 October 00 through 1 March 01. While at the JNLWD, Col Vaughters duties included SOCOM liaison officer and Special Assistant to the JNLW Director. Col Vaughters was instrumental in coordinating and monitoring the SOCOM and Marine Corps requirements scrub for non lethal weapon applications. The JNLWD was fortunate to have Col Vaughters as part of the JNLWD team.



## Inter-Service Non-Lethal Weapons Instructor Course

The Interservice Non-Lethal Weapons Instructor Course (INIWIC) at Fort Leonard Wood, Missouri is the only DOD organization authorized to conduct non-lethal instructor training. The course is designed to “train the trainer” and produce instructors who will conduct *basic user level* NL capability set training. The INIWIC graduate may also serve as the non-lethal operations advisor to his/her commander.

A student who attends INIWIC can expect to receive training that ranges from communication skills, crowd dynamics, force continuum, and oleoresin capsicum (OC) instructor certification to unarmed self-defense, defensive impact weapon, riot control tactics, and non-lethal munitions employment. INIWIC students are also taught that the NL mindset is more

than batons, rubber bullets, or new technology. They are given a profound understanding of the force continuum and the ability to escalate or deescalate force based upon a perceived threat. The NL mindset is a tool in the Commander’s toolbox that provides alternative options to traditional (sometimes lethal) responses.



The INIWIC has an annual throughput of over 300 students from all services and several allied nations. It is staffed by one Marine Corps officer and two Marine Corps Staff Non-Commissioned Officer instructors (all military police occupation field). Proposed staffing includes adding two additional Marine Corps and Army SNCO instructors. The course is currently 11 training days. In FY01 the course is expected to expand to 15 training days in order to accommodate new NL weapons technology. Additional funding has recently been designated for INIWIC facility construction and improvements in order to support an expected 400% increase in student throughput after October 1,

2000. The last three INIWIC classes had 63 seats allocated with 56 actually being filled by students. Service school seat allocations and scheduling can be obtained by contacting the respective service level training organization (T&E, TRADOC, CNET, etc).

The Course Content Review Board (CCRB) will be held at Fort Leonard Wood, Missouri 13-16 March 2001 and all service training representatives are encouraged to participate. For further information contact Capt Terry Johnson com (573) 596-0131 x 62148 or DSN 581-2148.



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## Joint Integration Program Semi-Annual Meeting

On 5-6 December 2000, the Semi-Annual Joint Integration Program (JIP) Users Conference was held at Quantico, Virginia. The conference was sponsored by the Program Manager, Non-Lethal Weapons and Urban Operations. Ms. Kara Heywood, JIP Project Officer, hosted the event. Each Service presented a briefing on the status of their respective Capability Sets (NLCS). Mr. Vince Ellis (MARCORSYSCOM) briefed the status of the Ammunition Characterization, the Mk141/M84 Non lethal stun/flash-bang grenade comparison testing, the 12-gauge flash-bang round comparison/evaluation and OC dispensers. The test plans are out for review and testing will begin in February 01.

Final reports from these efforts will be published this fiscal year.

The Service JIP principals agreed that a Voice Amplification System, a Red Dot Aiming Device, and a Common Multi-Function Dispensing System should be included in the JIP FY02 program. However the service principals stipulated that additional definition of these programs is needed before a final decision can be made and a funding plan for FY02 developed. The voting service members agreed that a requirement exists for a NL Ammunition Program Plan, which will capture and consolidate all munitions efforts into a single document that describes the JIP FY02-07 NL munitions plan. The next JIP meeting is scheduled for 3-4 April 01.



# Technology

## NTARS II

## Technology Investment Program (TIP) Panel Selections

The University of New Hampshire hosted the second annual Non Lethal Technology Academia Research Symposium (NTARS) on 15-17 November 2000 at the Sheraton Harbor Hotel in Portsmouth, New Hampshire. The symposium was co-sponsored by the Joint Non Lethal Weapons Directorate (JNLWD) and the National Institute of Justice (NIJ). During this multi-disciplinary conference, NTAR brought government, industry and academia together to share ideas, understanding and knowledge, in hope of identifying new areas for non-lethal technological research for both military and law enforcement applications.

Agenda items included Challenges of Terrorism; Non-Lethal Weapons and Environmental Issues; Human Effects update and Research for the Future. Participants included the University of New Hampshire; Department of Justice; Federal Bureau of Investigation; Kansas State University; Penn State; University of Texas; University of Maine; Wayne State University; Los Alamos National Laboratory and Natick Army Laboratory. Further information on NTARS can be found at [www.unh.edu/ntar](http://www.unh.edu/ntar).

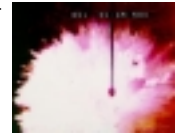
The FY01 TIP BAA theme topic is "Personnel Incapacitation". The Joint Service TIP Selection Panel selected three proposals from the original 35 received at the 3-4 Oct 00 review meeting. The three proposals are:

1) Thermobaric Technology for Non-Lethal Personnel Incapacitation [Naval Surface Warfare Center-Dahlgren Division]: The study will determine the feasibility of using thermobaric technology, which produces light, overpressure and heat, to incapacitate humans.



2) Front End Analysis of Potential Non-Lethal Anti-Personnel Weapons [Soldier & Biological Chemical Command (SBCCOM)]: The objective is to identify feasible non-lethal chemical materials for further testing which have minimal side effects for immobilizing adversaries in military and law enforcement scenarios.

3) Veiling Glare Effects of Violet Laser Exposures in Humans [Air Force Research Laboratory-Human Effectiveness Directed Energy Bioeffects Division & Optical Radiation Branch]: The initial effort will evaluate violet laser induced lens fluorescence in isolated human lenses. For further information on the TIP program, please contact Dr. Ken Tiedge at com (703) 784-2997 x232 or DSN 278-2997.



## SMALL BUSINESS INNOVATION RESEARCH (SBIR) Initiatives

The DoD SBIR Program provides funds to small technology companies for early-stage R&D projects which serve a DoD need and have the potential for commercialization in private sector and/or military markets. The SBIR program is funded by the Office of Naval Research (ONR) and MARCORSYSCOM CBG is currently the sponsor of two SBIR program topics: Non-Lethal Clearance of Facilities, and Tagging of Personnel and Materiel.

The Non-Lethal Clearance of Facilities SBIR was awarded to Scientific Applications & Research Associates (SARA) Incorporated. This project will make use of multi-sensory overload to effectively clear a facility. The senses affected will be vision, hearing, and smell. A successful Phase I demonstration was completed at SARA's facility on 11 Apr 2000. SARA was subsequently invited to present a Phase II proposal, which would be a 2- year, \$750K effort. MARCORSYSCOM's Program Manager for Non-Lethal Weapons is sponsoring the transition plan for the technology and will assume COR responsibilities in Phase II for the CFAC-CEP efforts.

The Personnel and Material Tagging SBIR will explore concept capabilities to covertly deliver a tagging device that would provide tracking capability from ranges greater than 1 kilometer. Phase I efforts were awarded to two companies, Signatron Technology Corporation and Triton Systems. Signatron pursued an approach that used an integrated network similar to a paging system to track a tag, while Triton combined a unique delivery system with a RF tag. Both contracts were awarded in April 2000 in Oct 2000. Triton Systems was invited to present a Phase II proposal for the follow-on 2- year, Phase II effort. MARCORSYSCOM's PM Non-Lethal is also sponsoring the transition plan for this technology and will also assume COR responsibilities in Phase II for the Incapacitation Personnel CEP.



# Acquisition News

## MODULAR CROWD CONTROL MUNITION VEHICLE MOUNTED SYSTEM MCCM-VMS



When the MCCM-VMS participated in the Joint Operational Excursion (JOE) in July 2000 the Services identified that the VMS boxes were too heavy and needed a better mounting design. Subsequently a lighter

box has been designed composed of one -eighth inch aluminum with a redesigned energy dispersion shape and increased venting. This has resulted in a reduction of the total weight from 26 to 12 pounds. The vehicle mounting design was also changed to be more durable. Due to the redesign, the Milestone III scheduled for 4QFY00 has slipped to 4QFY01. Developmental testing and a user demonstration will be repeated during 2QFY01 and 3QFY01. The VMS point of contact is Ms. Seham Salazar, at commercial (973) 724-6296 or DSN 880-6296.

## HUMAN EFFECTS CENTER OF EXCELLENCE HECOE

On 7 September 2000, the JNLWP Integrated Product Team approved the establishment of the Non-Lethal Weapons Human Effects Center of Excellence (HECOE). It's mission is to assist NLW Program Managers in accomplishing the necessary human effects characterization throughout a system's early development, formal acquisition, and operational life. Its objective is to assist decision and policy makers to determine the feasibility, operational utility, and policy acceptability of non-lethal weapons. It is to do so by the scientific, fair evaluation of existing human effects information, and by developing and providing strategies to collect the required information if it does not exist. The HECOE will act as the central repository of human effects data as well as maintain a reference list of organizations possessing the requisite resources and expertise to accomplish human effects characterization for the full gamut of technologies used in NLW developments.

It has begun to develop a process that will provide Program Managers with a recommended

risk characterization approach, metrics, and data requirements for assessing the effects on targets, users as well as noncombatants. This effort is expected to be completed during 4QFY01. Additionally, the HECOE is nearing the completion of initial assessments of the Modular Crowd Control Munition (MCCM), Pulsed Energy Projectile (PEP), 40mm Non-Lethal Crowd Dispersal Cartridge (NLCDC), and the Taser system.

The HECOE is being initially funded by the JNLWD with a plan to transition primary to customer funding by the NLW Program Managers by FY03. The HECOE POC is Dr. B. Jon Klauenberg, at (210) 536-4837, DSN 240-4837.

## Human Effects Advisory Panel HEAP

The independent Human Effects Advisory Panel completed its assessment of the human effects of the 66mm non-lethal grenades on 15 December 2000. The Panel found that the 66mm non-lethal grenades might cause three types



of injuries: less than permanent injuries (recoverable); potentially permanent injuries (degree of injury will be determined by available medical care); and lethal injury. Many less than permanent injuries, such as corneal inflammation, bruising, and temporary hearing loss, are expected to be minor

in nature. The probability of occurrence of severe or permanent injuries is low. There is a risk of permanent eye injuries. Lethal injuries including head injuries, solid organ injuries and commotio cordis are possible, but their probabilities are also low.

Although the 66mm non-lethal grenades are not designed to incapacitate, the weapons' blunt trauma, and/or visual and audio stimuli have other effects that may be operationally useful. As noted by one panel member, "...all these things happening together contribute to the definition of confusion and disorientation." Initially, the weapon may create a startle effect that is likely to contribute to a performance decrement in individuals for short periods of time. This decrement can "provide time for friendly forces to maintain the initiative" as the Operational Requirement Document states.

HEAP POC is Dr. John Kenny (Penn State University) (814) 863-9401; jmk14@psu.edu.





# Calendar of Events

## February-May 2001

27-28 Feb	Joint Acquisition Working Group (JAWG)	Quantico, VA	28-29 Mar	J8/JCS Directed Energy Protection Conference	Alexandria, VA
28 Feb	EBHEM Review	Penn State, PA	29-30 Mar	NLW Requirements Integration Group (RIG)	Ft. Benning, GA
Mar	VMADS Joint Service Integrated Product Team (IPT) Meeting	Albuquerque, NM	Apr	HQ USAF/XPX "USAF & NLW's" Seminar	Washington D.C.
5-8 Mar	PVAB Producability Verification Test (PVT)	Moses Lake, WA	2-5 Apr	PVAB Technical Manual Verification	Moses Lake, WA
6 Mar	Integrated Product Team (IPT) Meeting	Pentagon	3-4 Apr	JIP Coordination Meeting	Quantico, VA
7-8 Mar	Naval Studies Board (NSB) NLW Briefings	Georgetown	3-6 Apr	NL Technology Innovation Center (NTIC) Workshop	San Francisco, CA
7-9 Mar	NATO NLW MOE Study Meeting	Brussels, Belgium	14 Apr	JCATS NL Capability Set Study Planning Meeting	Ft. Leonard Wood, MO
13 Mar	HECOE Ribbon Cutting Ceremony	San Antonio, TX	21-22 Apr	USA Integrated Concept Team (ICT) Meeting	Ft. Leonard Wood, MO
13-16 Mar	INIWIC Course Content Review Board (CCRB)	Ft. Leonard Wood, MO	24-26 Apr	JCATS Configuration Control Board	Ft. Monroe, VA
14 Mar	JSSAP Management Committee Meeting	Ft. Benning, GA	8-10 May	FPED-III	Quantico, VA
22 Mar	Final 40mm NLCDC & Initial 66mm VL NLG's HERB Review	San Antonio, TX	14-18 May	USAF Security Forces Executive Council	Robins, GA
27-28 Mar	AD-V/CC Team Meeting	Ft. Benning, GA	15-18 May	NLW Risk Assessment Workshop	Cincinnati, OH